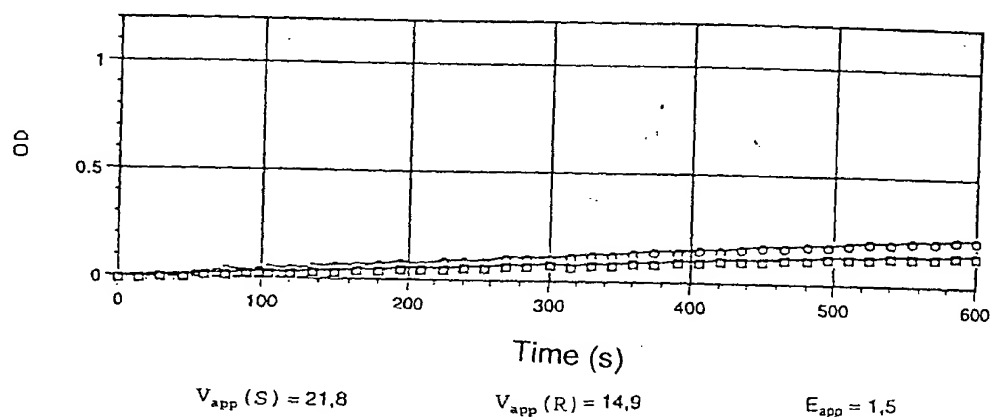
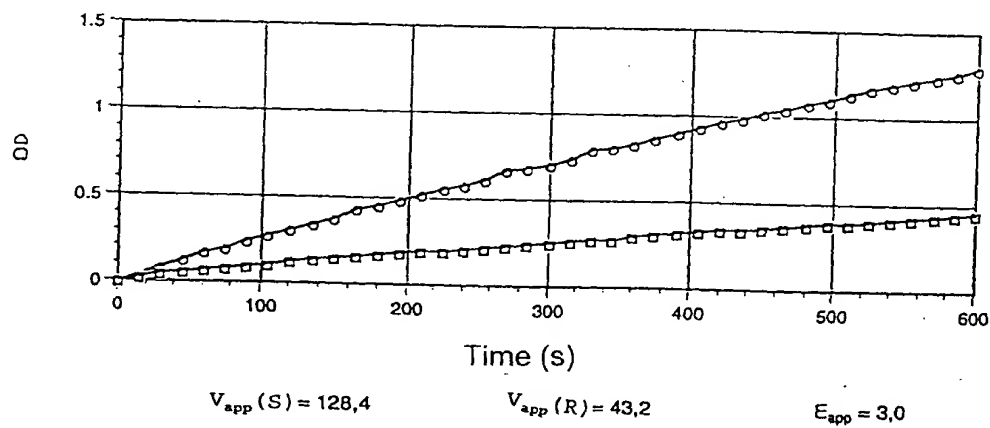
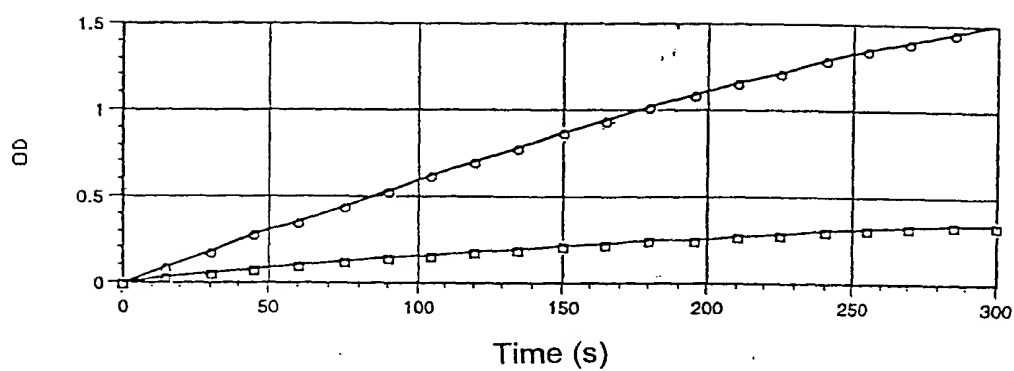


Fig. 1

Wild typeP1B 01-E4

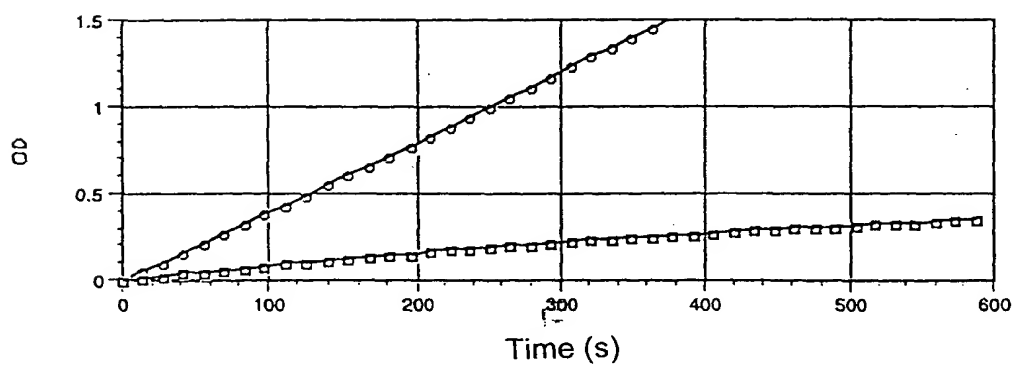
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P2B 08-H3

$V_{app}(S) = 310,8$

$V_{app}(R) = 67,4$

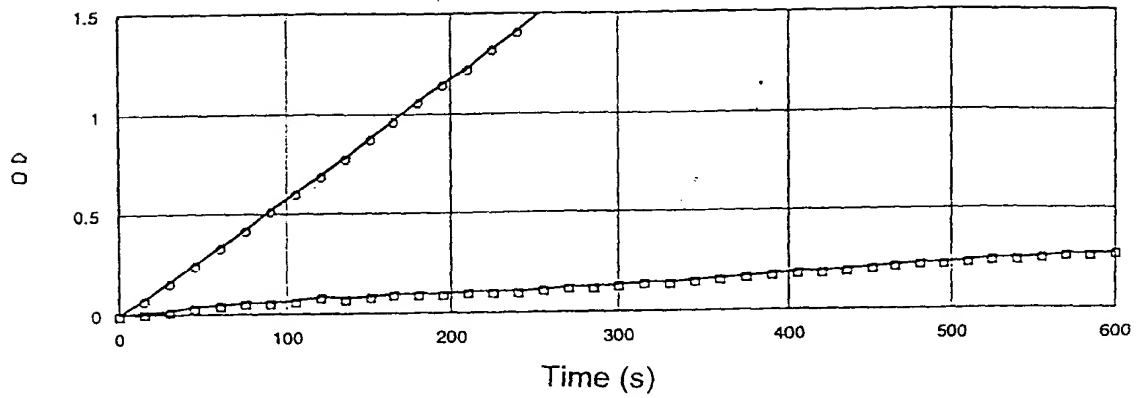
$E_{app} = 4,6$

P3B 13-D10

$V_{app}(S) = 241,1$

$V_{app}(R) = 35,2$

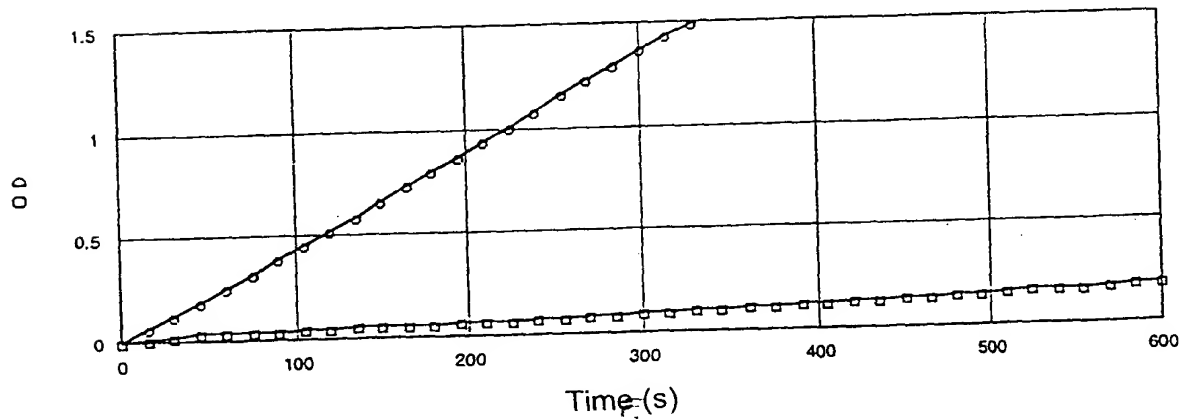
$E_{app} = 6,9$

P4B 04-H3

$$V_{app}(S) = 355,6$$

$$V_{app}(R) = 26,5$$

$$E_{app} = 13,4$$

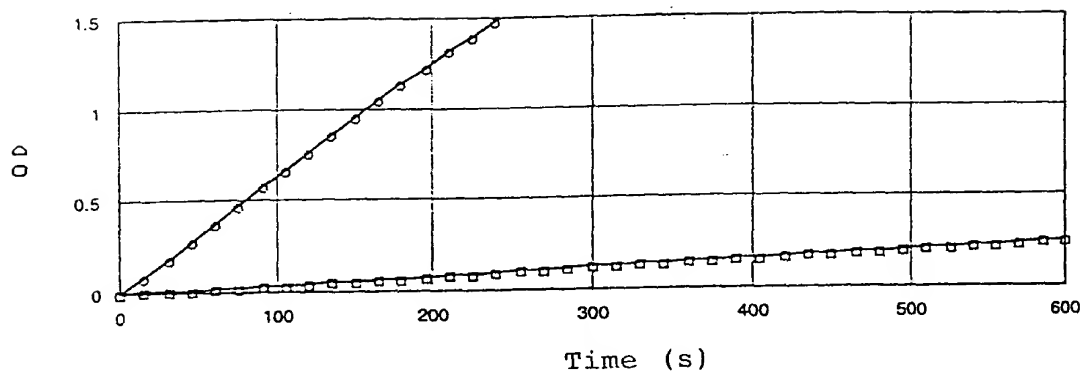
P5B 14-C11

$$V_{app}(S) = 275,9$$

$$V_{app}(R) = 17,3$$

$$E_{app} = 15,9$$

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P4BSF 03-G10 $V_{app}(S) = 384,7$ $V_{app}(R) = 25,3$ $E_{app} = 15,2$

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Fig. 2

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										10
G	G	A	T	C	C	C	C	C	G	19
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20
G	G	A	T	C	C	C	C	C	G	20

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										20
A	A	G	G	A	T	T	C	G	G	39
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40
A	A	G	G	A	T	T	C	G	G	40

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										40
G	C	A	G	G	A	C	G	C	G	59
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60
G	C	A	G	G	A	C	G	C	G	60

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										60
C	C	A	T	C	A	A	C	C	T	79
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80
C	C	A	T	C	A	A	C	C	T	80

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										80
C	A	A	C	A	T	G	A	A	G	99
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100
C	A	A	C	A	T	G	A	A	G	100

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

										100
T	G	C	T	C	C	C	C	C	T	119
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120
T	G	C	T	C	C	C	C	C	T	120

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Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

120															130															
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	139										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										
A	T	C	G	G	T	C	T	C	G	C	C	T	C	T	C	T	C	G	C	140										

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

140																150																
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	159												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												
T	G	C	C	A	G	C	C	C	T	C	T	G	A	T	C	C	A	G	G	160												

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

160										170										
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	179
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180
C	C	A	G	C	A	C	C	T	A	C	A	C	C	C	A	G	A	C	C	180

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

180													190													
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	199						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						
A	A	A	T	A	C	C	C	C	A	T	C	G	T	G	C	T	G	G	C	200						

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

200										210										
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	219
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220
C	C	A	C	G	G	C	A	T	G	C	T	C	G	G	C	T	T	C	G	220

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

220										230										
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	239
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	C	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240
A	C	A	A	C	A	T	C	C	T	T	G	G	G	G	T	C	G	A	C	240

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Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

240	250	
T A C T G G T T C G G C A T T C C C A G	259	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	
T A C T G G T T C G G C A T T C C C A G	260	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

260	270	
C G C C T T G C G C C G T G A C G G T G	279	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	
C G C C T T G C G C C G T G A C G G T G	280	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

280	290	
C C C A G G T C T A C G T C A C C G A A	299	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	
C C C A G G T C T A C G T C A C C G A A	300	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

300	310	
G T C A G C C A G T T G G A C A C C T C	319	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G T C A G C C A G T T G G A C A C C T C	320	
G G C A G C C A G T T G G A C A C C T C	320	
G G C A G C C A G T T G G A C A C C T C	320	
G G C A G C C A G T T G G A C A C C T C	320	
G G C A G C C A G T T G G A C A C C T C	320	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

320	330	
G G A A G T C C G C G G C G A G C A G T	339	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	
G G A A G T C C G C G G C G A G C A G T	340	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

340	350	
T G C T G C A A C A G G T G G A G G A A	359	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	
T G C T G C A A C A G G T G G A G G A A	360	

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Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

360																	370			
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	379
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380
A	T	C	G	T	C	G	C	C	C	T	C	A	G	C	G	G	C	C	A	380

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

380													390													
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	399						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						
G	C	C	C	A	A	G	G	T	C	A	A	C	C	T	G	A	T	C	G	400						

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

400													410													
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	419						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						
G	C	C	A	C	A	G	C	C	A	C	G	G	C	G	G	G	C	C	G	420						

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

420													430													
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	C	439				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				
A	C	C	A	T	C	C	G	C	T	A	C	G	T	C	G	C	C	G	C	C	G	440				

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

440													450													
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	459					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					
C	G	T	A	C	G	T	C	C	C	C	G	A	C	C	T	G	A	T	C	G	460					

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

460																470					
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	479	
C	T	T	C	C	G	C	C	A	T	C	C	A	G	C	G	T	C	G	G	C	480
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	
C	T	T	C	C	G	C	C	A	C	C	A	G	C	G	T	C	G	G	C	480	

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Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

480	490	
G C C C C G C A C A A G G G T T C G G A	499	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	
G C C C C G C A C A A G G G T T C G G A	500	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

500	510	
C A C C G C C G A C T T C C T G C G C C	519	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	
C A C C G C C G A C T T C C T G C G C C	520	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

520	530	
A G A T C C C A C C G G T T C G G C C	539	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	
A G A T C C C A C C G G T T C G G C C	540	

Wild type

P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

540	550	
G G C G A G G C A G T C C T C T C C G G	559	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	
G G C G A G G C A G T C C T C T C C G G	560	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

560	570	
G C T G G T C A A C A G C C T C G G C G	579	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	
G C T G G T C A A C A G C C T C G G C G	580	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

580	590	
C G C T G A T C A G C T T C C T T T C C	599	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	
C G C T G A T C A G C T T C C T T T C C	600	

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Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

600	610										
A	G	C	G	G	C	A	G	C	A	C	619
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620
A	G	C	G	G	C	G	G	C	A	C	620

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

620	630										
G	A	A	T	T	C	A	C	T	G	G	639
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640
G	A	A	T	T	C	A	C	T	G	G	640

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

640	650										
A	G	T	C	G	C	T	G	A	A	C	659
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660
A	G	T	C	G	C	T	G	A	A	C	660

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

660	670										
G	C	C	G	C	G	C	G	C	T	T	679
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680
G	C	C	G	C	G	C	G	C	T	T	680

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

680	690										
G	T	A	C	C	C	G	C	A	G	G	699
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700
G	T	A	C	C	C	G	C	A	G	G	700

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

700	710										
C	C	T	C	G	G	C	C	T	G	C	719
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720
C	C	T	C	G	G	C	C	T	G	C	720

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11/13

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

720	730	
G C C T A C A A G G T C A A C G G C G T	739	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	
G C C T A C A A G G T C A A C G G C G T	740	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

740	750	
G A G C T A T T A C T C C T G G A G C G	759	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	
G A G C T A T T A C T C C T G G A G C G	760	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

760	770	
G T T C C T C G C C G C T G A C C A A C	779	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	
G T T C C T C G C C G C T G A C C A A C	780	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

780	790	
T T C C T C G A T C C G A G C G A C G C	799	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	
T T C C T C G A T C C G A G C G A C G C	800	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

800	810	
C T T C C T C G G C G C C T C G T C G C	819	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	
C T T C C T C G G C G C C T C G T C G C	820	

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

820	830	
T G A C C T T C A A G A A C G G C A C C	839	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	
T G A C C T T C A A G A A C G G C A C C	840	

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12/13

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

840	850	
G C C A A C G A C G G C C T G G T C G G		859
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860
G C C A A C G A C G G C C T G G T C G G		860

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

860	870	
C A C C T G C A G T T C G C A C C T G G		879
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880
C A C C T G C A G T T C G C A C C T G G		880

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

880	890	
G C A T G G T G A T C C G C G A C A A C		899
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900
G C A T G G T G A T C C G C G A C A A C		900

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

900	910	
T A C C G G A T G A A C C A C C T G G A		919
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920
T A C C G G A T G A A C C A C C T G G A		920

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

920	930	
C G A G G T G A A C C A G G T C T T C G		939
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940
C G A G G T G A A C C A G G T C T T C G		940

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

940	950	
G C C T C A C C A G C C T G T T C G A G		959
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960
G C C T C A C C A G C C T G T T C G A G		960

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13/13

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

960	970	
A C C A G C C C G G T C A G C G T C T A		979
A C C A G C C C G G T C A G C G T C T A		980
A C C A G C C C G G T C A G C G T C T A		980
A C C A G C C C G G T C A G C G T C T A		980
A C C A G C C C G G T C A G C G T C T A		980
A C C A G C C C G G T C A G C G T C T A		980
A C C A G C C C G G T C A G C G T C T A		980

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

980	990	
C C G C C A G C A C G C C A A C C G C C		999
C C G C C A G C A C G C C A A C C G C C		1000
C C G C C A G C A C G C C A A C C G C C		1000
C C G C C A G C A C G C C A A C C G C C		1000
C C G C C A G C A C G C C A A C C G C C		1000
C C G C C A G C A C G C C A A C C G C C		1000
C C G C C A G C A C G C C A A C C G C C		1000

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

1000	1010	
T G A A G A A C G C C A G C C T G T A G		1019
T G A A G A A C G C C A G C C T G T A G		1020
T G A A G A A C G C C A G C C T G T A G		1020
T G A A G A A C G C C A G C C T G T A G		1020
T G A A G A A C G C C A G C C T G T A G		1020
T G A A G A A C G C C A G C C T G T A G		1020
T G A A G A A C G C C A G C C T G T A G		1020

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

1020	1030	
G A C C C C G G C C G G G G C C T C G G		1039
G A C C C C G G C C G G G G C C T C G G		1040
G A C C C C G G C C G G G G C C T C G G		1040
G A C C C C G G C C G G G G C C T C G G		1040
G A C C C C G G C C G G G G C C T C G G		1040
G A C C C C G G C C G G G G C C T C G G		1040
G A C C C C G G C C G G G G C C T C G G		1040

Wild type

P1B 01-H1
P1B 01-E4
P2B 08-H3
P3B 13-D10
P4B 04-H3
P5B 14-C11
P4BSF 03-G10

1040		
C C C G G G C C		1047
C C C G G G C C		1049
C C C G G G C C		1049
C C C G G G C C		1049
C C C G G G C C		1049
C C C G G G C C		1050
C C C G G G C C		1049
C C C G G G C C		1049

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